

Title: Seismic resistance of earth construction in Portugal

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Source: Engineering Structures

Volume: 33 **Issue:** 3

Pages: 932-941 **DOI:** 10.1016/j.engstruct.2010.12.014 **Published:** MAR 2011

Abstract: This paper presents an assessment of the potential seismic performance of new earth construction in Portugal. Results of a parametric study on a properly designed rammed earth construction, considering several strengthening solutions, are presented and discussed. It is concluded that single storey houses can have acceptable seismic performance even in high seismicity areas, provided that the structure is adequately strengthened by reinforced concrete columns and beams. Improvement of the characteristics of the structural material (earth) may be necessary to reduce damage. (C) 2010 Elsevier Ltd. All rights reserved.

Language: English

Document Type: Article

Author Keywords: Rammed Earth; Seismic Behaviour; Stress Analysis

KeyWords Plus: Rammed Earth

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Publisher: Elsevier SCI LTD

Publisher Address: THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, Oxon, ENGLAND

ISSN: 0141-0296